

ABSTRACT

An elastic tube (40) is connected to the base end portion of a catheter main body (1) having a balloon (2) at its top end portion. When the elastic tube (40) is set at a vibrator device (RP), the end portion side of the elastic tube, projecting outside, works as a margin volume part (40A). A roller (53) of the vibrator device (RP) can have a shut-off state where the elastic tube (40) is pressed and completely closed, and a communication state where the elastic tube cannot be pressed. When the roller (53) is rotated in a predetermined direction with the inside of a route from the balloon (2) up to the elastic tube (40) filled up with a liquid for heating, the liquid in the elastic tube (40) is pressed toward the margin volume part (40A) in the shut-off state, while in the communication state, the pressurized heating liquid in the margin volume part (40A) flows backward to the balloon (2) side. Repeating the pressurizing and the backward flow vibrates the heating liquid in the balloon (2). When the balloon (2) is larger, the length (V) of the margin volume part (40A) is made longer, so that an adequate level of vibration in accordance with the size of the balloon (2) can be applied.